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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,400	10/01/2003	Tomio Satoh	172A 3476	7550
3713	7590	04/28/2005	EXAMINER	
KODA & ANDROLIA 2029 CENTURY PARK EAST SUITE 1140 LOS ANGELES, CA 90067			CHANG, JOSEPH	
			ART UNIT	PAPER NUMBER
			2817	

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

12 ✓

Office Action Summary	Application No. 10/676,400	Applicant(s) SATO ET AL.	
	Examiner Joseph Chang	Art Unit 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 6-9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/24/04 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

Figures 18-24 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiba, US Patent No. 4,193,046 in view of Nakano et al., US Patent no. 5,523,722 (hereafter Nakano).

Regarding Claim 1, Chiba discloses in Figure 2 a piezoelectric oscillator comprising a piezoelectric vibrator (X) that has a piezoelectric element which is excited in a predetermined frequency (intrinsic property), an oscillation amplifier transistor (TR1) that excites the piezoelectric element by flowing a current to the piezoelectric element, a combined capacitor (C4, C5) that is connected between a base of the oscillation amplifier transistor and the ground and that forms a part of a load capacitance, and an emitter resistor (R8) that is inserted between an emitter of the oscillation amplifier transistor and the ground, wherein a non-inductive load (R7) is connected to a collector of the oscillation amplifier transistor. However, Chiba does not disclose a capacitor inserted between the collector and the emitter of the oscillation amplifier transistor.

Nakano discloses a capacitor C2 inserted between the collector and the emitter of oscillation amplifier transistor Tr in Figure 1, Col.4 line 37. Nakano teaches that such an arrangement reduce the harmonics (noise) from the output stage.

Therefore, it would have been obvious to one of ordinary skill in the art to insert a capacitor between the collector and the emitter of the oscillation amplifier transistor of Chiba because such modification would have been provided the benefit of reduction of noise from its output stage.

Regarding Claim 2, Chiba shows the combined capacitor (C4, C5) composed of a capacitor (C4) that is connected between the base and the emitter of the oscillation amplifier transistor (TR1) and a capacitor (C5) that is connected between the emitter and the ground, and the base of the oscillation amplifier transistor is biased at a predetermined potential (node of R5 and R6).

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiba, US Patent No. 4,193,046 in view of Nakano et al., US Patent no. 5,523,722 (hereafter Nakano) as applied to claims 1-2 above, and further in view of Sato, US Pub. No. 20010043125 A1.

Regarding Claims 3-5, such embodiment recited in the claims is discussed above except a cascade configuration. As would have known in the art, a cascade configuration, a second transistor connected in cascade is to boost amplification, as an example, Sato shows a cascade configuration. Therefore, it would have been obvious to one of ordinary skill in the art to include a second transistor in a cascade configuration because such modification would have been provided the benefit of booting amplification.

Allowable Subject Matter

Claims 6-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the best prior art of record, Chiba, taken alone or in combination of other

Art Unit: 2817

references, does not teach or fairly suggest the capacitance of the capacitor inserted between the collector and the emitter is at or above the capacitance of the capacitor inserted between the emitter of the oscillation amplifier transistor and the ground.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

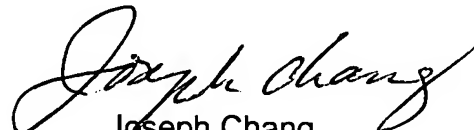
Hill discloses a buffered crystal oscillator.

Ash et al. discloses a Colpitts oscillator using SAW resonator.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Chang whose telephone number is 571 272-1759. The examiner can normally be reached on Mon-Fri 0700-1730.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571) 272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph Chang
Patent Examiner
Art Unit 2817